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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/584,097

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Emmanuel Ardichvili

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HOGAN & HARTSON LLP  
ONE TABOR CENTER, SUITE 1500  
1200 SEVENTEENTH ST  
DENVER, CO 80202

EXAMINER

DOAN, KIET M

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/584,097	<b>Applicant(s)</b> ARDICHVILI ET AL.	
	<b>Examiner</b> KIET DOAN	<b>Art Unit</b> 2617	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☒ Claim(s) 4,7,8,9,13, 17 and 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 5, 6, 10, 11, 12, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bolan et al. (US 5,684,828) in view of Ishigaki et al. (US 4,977,578).

Consider **claims 1 and 10**. Bolan teaches a method of performing time drift compensation in a receiver, the method comprising the steps of:

receiving a signal, which comprises chips, at the receiver (Col.12, lines 20-21 teach receiver chip 210);

producing a control pulse after having received a certain number of chips of the received signal (Col.4, lines 47-56, Col.12, lines 25-34);

controlling a variable delay applied to the received signal (Col.13, lines 3-8, 56-67, Col.14, lines 1-2). Bolan **fails to explicitly teach**

sending, to demodulation units in the receiver, a delayed signal in which chips have been omitted or duplicated on the basis of said control pulse;

supplying, to said demodulation units in the receiver, a compensation signal that indicates whether chips have been omitted or duplicated in the delayed signal; and

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demodulating the delayed signal such that the demodulation units consider the omission or duplication of chips in the delayed signal.

In an analogous art, **Ishigaki teaches**

sending, to demodulation units in the receiver, a delayed signal in which chips have been omitted or duplicated on the basis of said control pulse (Col.5, lines 38-50, Col.10, lines 15-17);

supplying, to said demodulation units in the receiver, a compensation signal that indicates whether chips have been omitted or duplicated in the delayed signal; and

demodulating the delayed signal such that the demodulation units consider the omission or duplication of chips in the delayed signal (Col. 11, lines 60-64. Col.16, lines 4-50).

Therefore, it would have been obvious at the time that the invention was made to modify Bolan with Ishigaki's system such that receiver contain chips and pulse control for controlling a variable delay signal which chips have been omitted or duplicated in order to improve the control and arrangement channel signal without degradation or interference.

Consider **claims 2 and 11**. The combination of Bolan and Ishigaki teach the method according to claim 1. Further, Ishigaki teaches comprising the step of synchronizing the compensation signal to the control pulse (Col.3, lines 31-40, Col.4, lines 35-39).

Consider **claim 3 and 12**. The combination of Bolan and Ishigaki teach the method according to claim 1. Further, Bolan teaches comprising the step of aligning said control pulse with a symbol boundary (Col.4, lines 47-56, Fig.5a-5b show as the aligning said control pulse with a symbol boundary).

Consider **claims 5 and 14**. The combination of Bolan and Ishigaki teach the method according to claim 1. Further, Ishigaki teaches wherein the compensation signal is given a first value which indicates that a chip has been omitted in the delayed signal and a second value which indicates that a chip has been duplicated in the delayed signal (Col. 11, lines 60-64. Col.16, lines 4-50).

Consider **claims 6 and 15**. The combination of Bolan and Ishigaki teach the method according to claim 1. Further, Ishigaki teaches wherein the step of demodulating chips comprises the steps of: descrambling the delayed chips; and despreading the descrambled chips (Abstract, lines 20-23, Col.2, lines 28-35).

3. Claims 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bolan et al. (US 5,684,828) in view of Ishigaki et al. (US 4,977,578).

Consider claim 16. The combination of Bolan and Ishigaki teach the receiver according to claim 10, **but is silent on** wherein the demodulation units comprise: integrators arranged to integrate the demodulated pilot chips to create a pilot symbol and the demodulated data chips to create a data symbol.

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In an analogous art, **Lundby teaches** wherein the demodulation units comprise: integrators arranged to integrate the demodulated pilot chips to create a pilot symbol and the demodulated data chips to create a data symbol (Paragraph [0036-0037], [0033]).

Therefore, it would have been obvious at the time that the invention was made to modify Bolan and Ishigaki with Lundby's system such that integrators arranged to integrate the demodulated pilot chips to create a pilot symbol in order to provide multiple channel communication without interference.

### ***Allowable Subject Matter***

3. Claims 4-9, 13 and 17-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KIET DOAN whose telephone number is (571)272-7863. The examiner can normally be reached on 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Appiah N. Charles can be reached on 571-272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kiet Doan/  
Examiner, Art Unit 2617

/Charles N. Appiah/  
Supervisory Patent Examiner, Art Unit 2617